

HP Kayak XU & XW PC Workstations



User's Guide



Notice

The information contained in this document is subject to change without notice.

Hewlett-Packard makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Hewlett-Packard assumes no responsibility for the use or reliability of its software on equipment that is not furnished by Hewlett-Packard.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Hewlett-Packard Company.

Adobe® Reader © 1987-1997 Adobe Systems Incorporated. All rights reserved. Adobe and Acrobat are trademarks of Adobe Systems Incorporated. Microsoft®, MS®, MS-DOS®, Windows®, and Windows NT® are U.S. registered trademark of Microsoft Corporation.

Hewlett-Packard France
Performance Desktop Computing Operation
38053 Grenoble Cedex 9
France

© 1998 Hewlett-Packard Company

User's Guide

Who This Manual Is For

This manual is for anyone who wants to:

- Set up the PC Workstation for the first time.
- Configure the PC Workstation.
- Add accessories to the PC Workstation.
- Troubleshoot problems on the PC Workstation.
- Find out where to get more information and support.

Important Safety Information

WARNING

If you have any doubt that you can lift the PC Workstation or display safely, do not try to move it without help.

For your safety, always connect the equipment to a grounded wall outlet. Always use a power cord with a properly grounded plug, such as the one provided with this equipment, or one in compliance with your national regulations. This PC Workstation is disconnected from the power by removing the power cord from the power outlet. This means the PC Workstation must be located close to a power outlet that is easily accessible.

For your safety, never remove the PC Workstation's cover without first removing the power cord from the power outlet, and any connection to a telecommunications network. Always replace the cover on the PC Workstation before switching it on again.

To avoid electric shock, do not open the power supply. There are no user-serviceable parts inside.

This HP PC Workstation is a class 1 laser product. Do not attempt to make any adjustment to the laser units.

Important Ergonomic Information

It is strongly recommended that you read the ergonomic information before using your PC Workstation. If you are using Windows NT 4.0, open the **Start** menu in the task bar and select **Programs —HP Info**. Then double-click the help topic “**Working in Comfort**”.

Contents

1	Setting Up and Using Your HP PC Workstation	1
2	How to Install Accessories In Your HP PC Workstation	19
3	Troubleshooting Your HP PC Workstation	27
4	Hewlett Packard Support and Information Services.	41
	Regulatory Information and Warranty	49

Setting Up and Using Your HP PC Workstation

Unpacking Your Kayak PC Workstation

WARNING

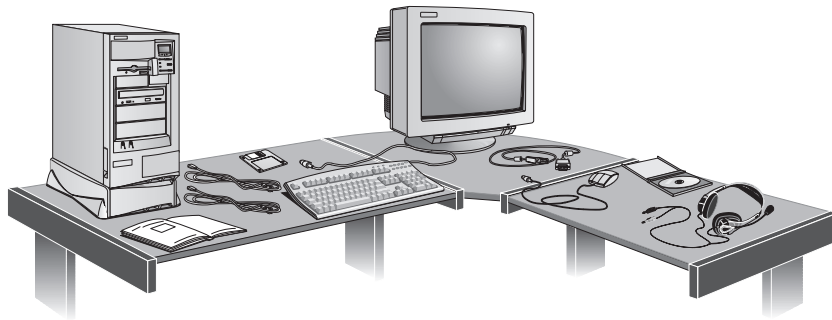
If you are in any doubt that you can lift the PC Workstation and the display safely, do not try to move them without help.

- 1 When you receive your PC Workstation, unpack all of the components.

NOTE

Device drivers, HP utilities, and an online *Using Sound* guide are preloaded on your system and provided on an HP CD-ROM. This CD-ROM also includes tips for re-installing the operating system.

- 2 Place the PC Workstation on a sturdy desk with easily accessible power outlets and enough space for the keyboard, mouse, and any other accessories.



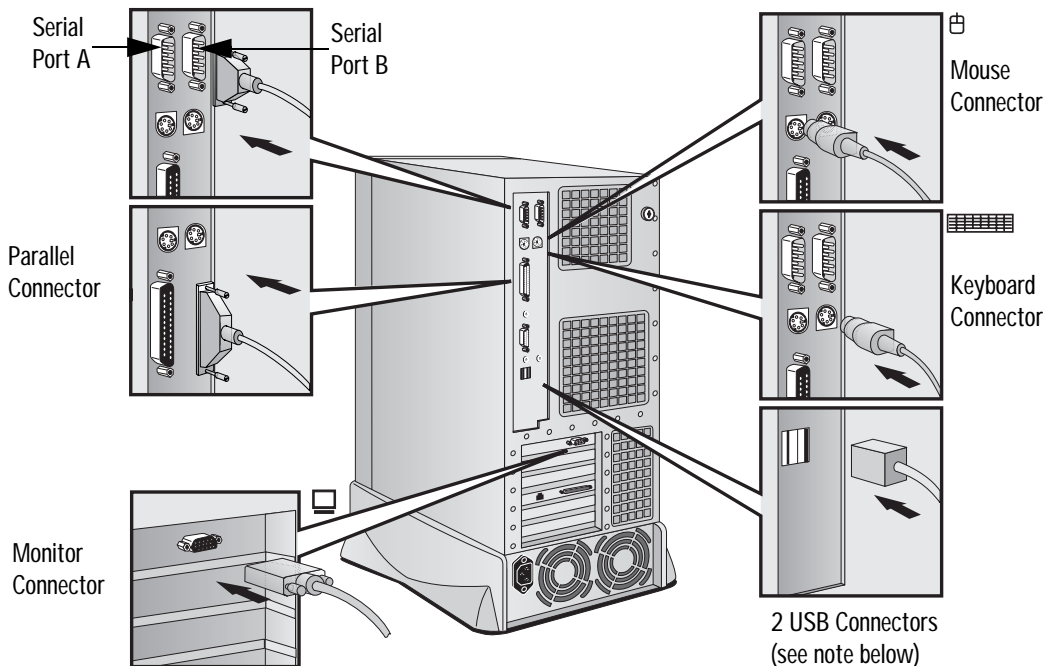
- 3 Position the PC Workstation so that its rear connectors are easily accessible.

Installation Tools

No tools are required to install your PC Workstation. However, if you plan to install a disk drive or an accessory board inside your PC Workstation, you will need a flat-blade screwdriver. For more information on installing accessories, refer to "How to Install Accessories In Your HP PC Workstation", on page 19.

Connecting the Mouse, Keyboard, Display and Printer

Connect the mouse, keyboard, display and printer to the back of the PC workstation. *The connectors are shaped to go in one way only.* Tighten the display cable attachment screws.



NOTE

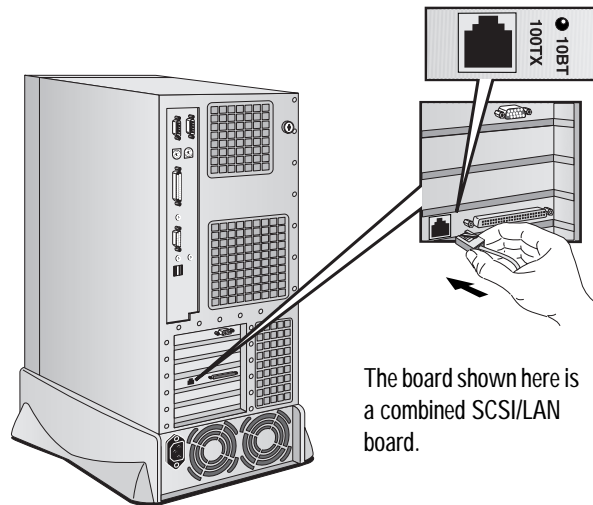
The Universal Serial Bus (USB) connectors can be used for USB accessories. Most USB accessories are automatically configured as soon as they are physically attached to the PC Workstation. USB accessories are not supported by all operating systems.

Connecting to a Network

Your PC Workstation has a 10/100BT LAN interface adapter.

The LAN adapter supports both 10 Mbit/s and 100 Mbit/s operations and automatically detects which network type is being used.

- 1 Connect the RJ-45 plug on your network cable to the LAN connector on the LAN Adapter. Push the plug into the connector until the plug clicks into place.



- 2 Attach the other end of the LAN cable to a hub (or into a wall socket that is connected to a hub).

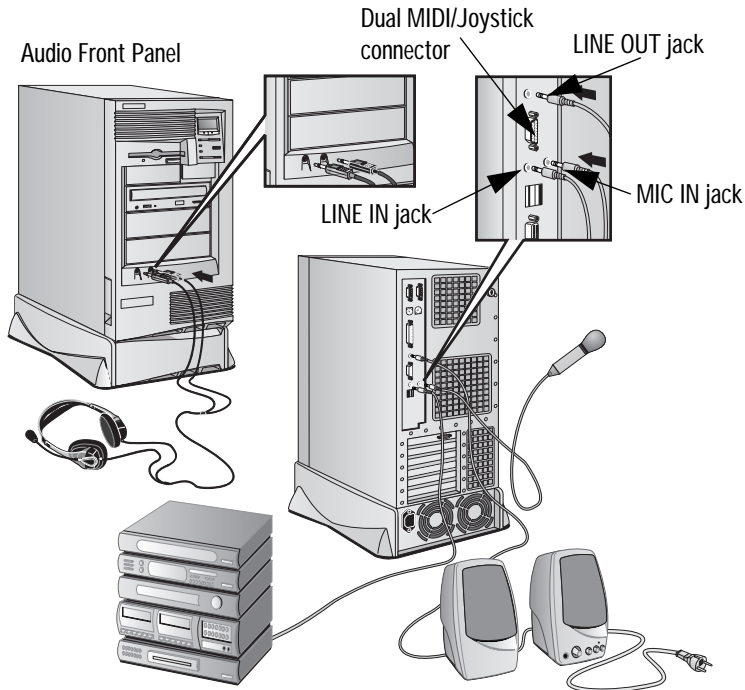
Let your Network Administrator know that you are connecting your PC Workstation to the network.

For further instructions on configuring your network connection, refer to the *Upgrade and Configuration Guide* available on HP's Web site.

Refer also to the online *Network Administrator's Guide* (provided on an HP CD-ROM) for further instructions on setting up your PC Workstation for a LAN connection.

Connecting Audio Accessories

Your PC Workstation has a Headphone Out jack and a Microphone In jack on the Audio Front Panel. A LINE IN jack, LINE OUT jack, MIC IN jack, and MIDI/Joystick connector are located on the rear panel.



NOTE

The internal speaker and LINE OUT jack on the rear panel of your PC Workstation are deactivated when you use the Headphones jack on the Audio Front Panel.

The internal speaker is deactivated when you use the LINE OUT jack. External speakers you connect should have a built-in power supply.

The audio accessories shown here (microphone, speakers, and audio system) are not supplied with your PC Workstation.

Volume can be controlled through the HP enhanced keyboard, or the software volume control.

WARNING

To avoid discomfort from unexpected noise, always turn down the volume before connecting headphones or speakers.

Listening to loud sounds for prolonged periods may permanently damage your hearing.

Before putting on headphones, place them around your neck and turn down the volume. When you put on the headphones, slowly increase the volume until you find a comfortable listening level, then leave the volume control in that position.

Connecting an External SCSI Accessory

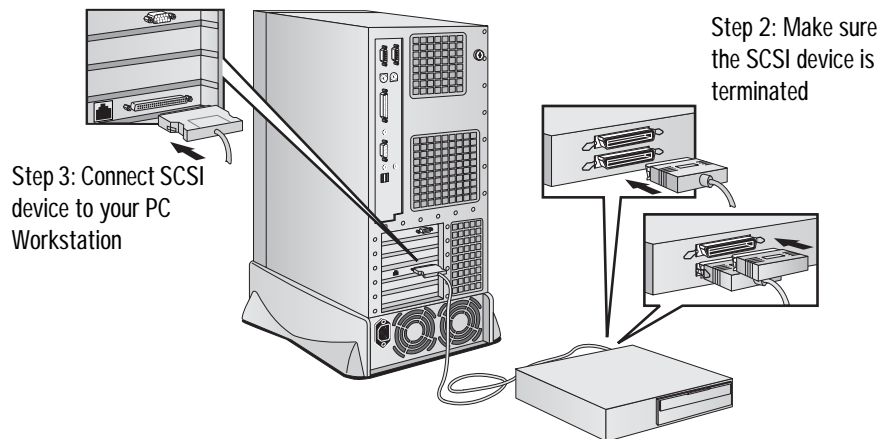
An external SCSI device can be connected as follows:

- 1 You should assign an unused SCSI ID to the device. SCSI IDs range from 0 to 15 for wide 16-bit SCSI devices. Generally, the SCSI ID 0 is reserved for the first SCSI hard disk drive and SCSI ID 7 is reserved for the SCSI controller (the default for narrow and wide SCSI devices).

NOTE

Depending on your operating system, you *may* need to set a SCSI ID for Plug and Play SCSI devices (SCSI devices that support the SCAM protocol).

- 2 Make sure the SCSI device is terminated correctly—either internally or by a terminating resistor (refer to the manual provided with the SCSI device).
- 3 Connect the SCSI device to your PC Workstation's external 16-bit SCSI connector with a shielded SCSI cable.



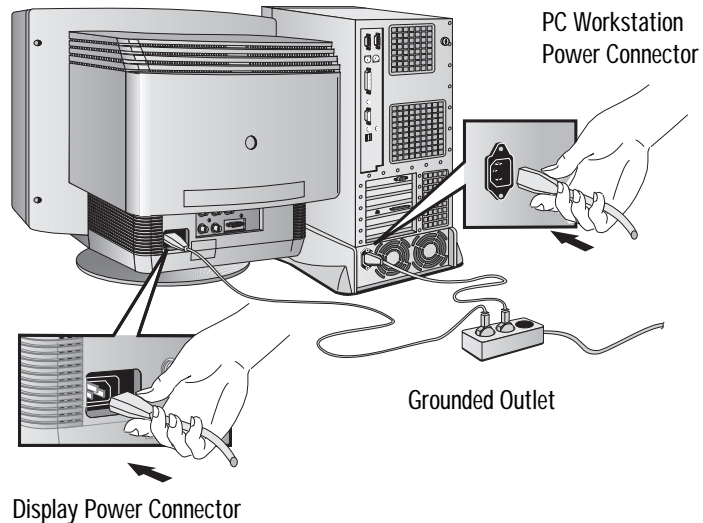
- 4 Refer to the manual provided with the SCSI device to learn how to install any software that may be necessary to use it.

NOTE

The total length of the external SCSI cables should not exceed 3 meters (approximately 10 feet).

Connecting the Power Cords

- 1 Remove any warning labels that may be covering the computer's power connector on the rear of the computer.
- 2 Connect the power cords to the display and the computer. (*The connectors are shaped to go in one way only.*)



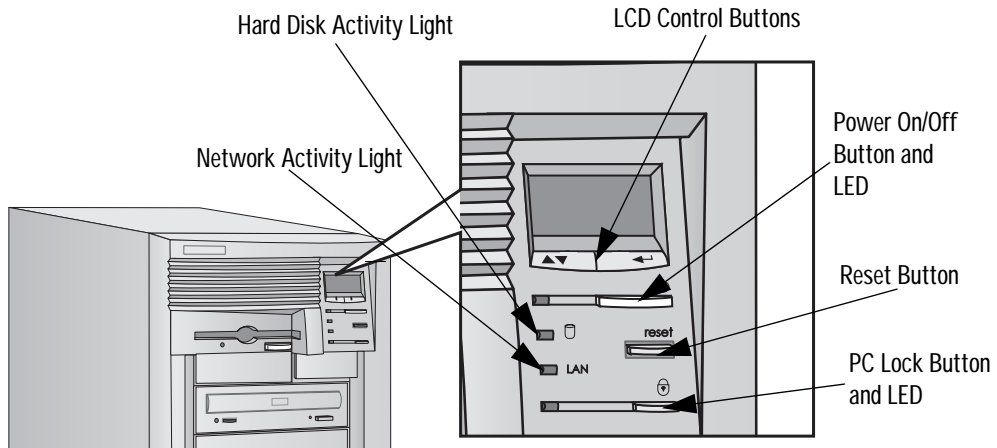
- 3 Connect the display's power cord and the computer's power cord to grounded outlets.

WARNING



For your safety, always connect the equipment to a grounded wall outlet. Always use a power cord with a properly grounded plug, such as the one provided with this equipment, or one in compliance with your national regulations. This PC Workstation is disconnected from the power by removing the power cord from the power outlet. This means the PC Workstation must be located close to a power outlet that is easily accessible.

The MaxiLife Control Panel

The MaxiLife panel is located on the front of your PC Workstation.



HP MaxiLife and its Liquid Crystal Display (LCD)

HP MaxiLife and its LCD screen helps you diagnose problems with your PC Workstation and provides system information you may need to obtain support. Press one of the LCD control buttons to display the menu. Use  to scroll through the menu items and  to select the item required. For more information on using the LCD, refer to “Using HP MaxiLife to Diagnose Problems” on page 28.

PC Lock Button

With the HP Lock installed, you can use this button to prevent unauthorized access of your PC Workstation during your absence. Your applications will remain active. To unlock the PC Workstation, enter the Window's login password (refer to Window's **Help** in the **Start** menu for more information on setting or changing this password).

Network Activity Light

This light glows/flickers when your PC Workstation is accessing the network.

Hard Disk Activity Light

This light glows/flickers when your hard disk drive is being accessed.


Starting and Stopping Your PC Workstation


Starting Your PC Workstation for the First Time

If your PC Workstation has preinstalled software, it is initialized the first time you start the PC Workstation. The software initialization process takes a few minutes. This process sets up the software in your language and sets up your software to use the hardware installed in your computer (you can change the settings after the software has been initialized).

Starting Your PC Workstation

- 1 Before you start your PC Workstation, first switch on the display.
- 2 Start your PC Workstation in one of these ways:
 - Press the power button on the front panel.
 - Press the keyboard space bar.
The keyboard power-on feature will work only if **Space-bar** is enabled in the **Power** menu of the *Setup* program (refer to page 39) and the appropriate system board switch is DOWN (the default setting).

When you switch on the computer, it carries out the Power-On-Self-Test (POST) while the PC Workstation's logo is displayed. If you wish to view the details of this test, press . If there is an error in the POST, the error will automatically be displayed.

- 3 If you have set a password in the PC Workstation's *Setup* program, the password prompt is displayed after the POST has completed. If the Password prompt is displayed, type your password and press  to be able to use the PC Workstation.

Initializing Your Software

NOTE

Do NOT switch OFF the PC Workstation while the software is being initialized—this could cause unexpected results.

To initialize your software:

- 1 Turn on the display first, and then the PC Workstation.

When the PC Workstation is switched on, the HP PC Workstation's logo is displayed. The PC Workstation performs a Power-On-Self-Test (POST).

- 2 The software initialization process starts. It displays the software license agreement, gives you an opportunity to read Working in Comfort (ergonomic advice for computer users), and then asks questions about the PC Workstation.
- 3 While the initialization process is running, you can complete the Warranty Registration card that came with this manual.
- 4 When the initialization process has finished, click OK and the PC Workstation will restart.

Creating an Emergency Repair Disk

During the initialization of your software, it is very important that you create an Emergency Repair Disk for the operating system, when prompted. HP recommends that you use new diskettes for this purpose.

For more information on how to create these diskettes, refer to the documentation that came with your application software or operating system.

Stopping Your PC Workstation

To stop the PC Workstation, (whilst running an operating system) first make sure that you have exited all applications and then use your operating system's shutdown command, in the **Start** menu. When prompted, press the power button on your PC Workstation's control panel.

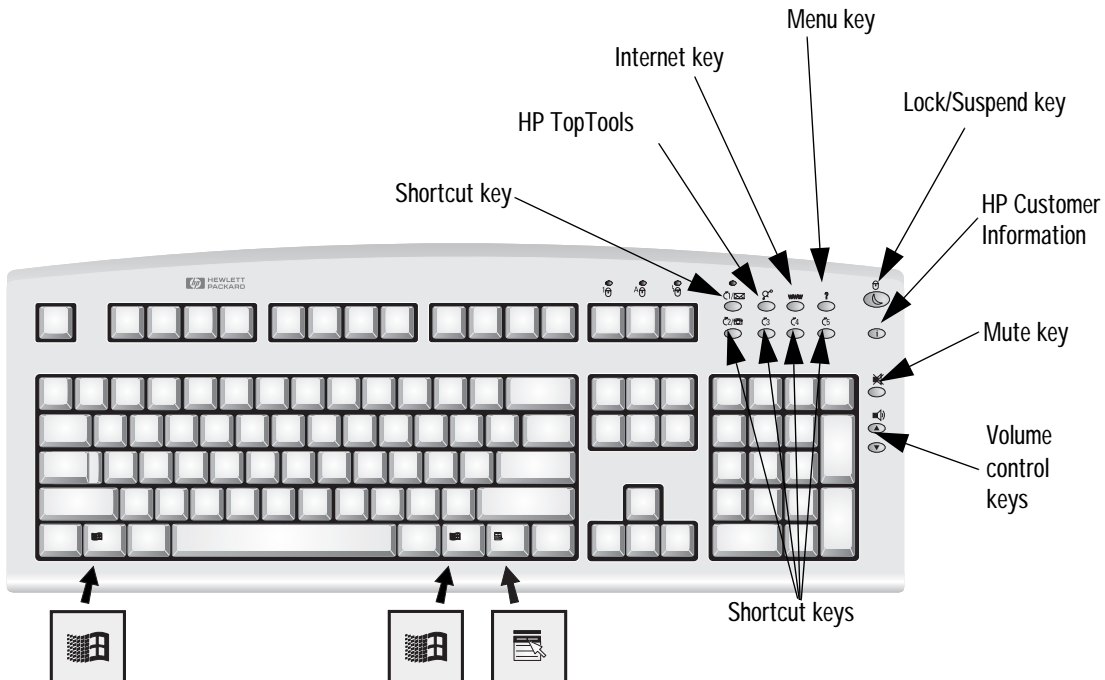
CAUTION

Do not use the power button until prompted to do so as you may lose any unsaved data from open applications.

Using Your HP Enhanced Keyboard

The HP enhanced keyboard includes soft keys you can use to:

- Display and configure the actions assigned to keys.
- Perform one-touch shortcuts to start applications, open files, or open sites on the WWW.
- Launch the Internet browser supplied with your system.
- Lock or suspend your PC Workstation.
- Access HP TopTools and customer information.
- Mute or adjust the volume of the audio system.



Menu Key

Pressing the “?” Menu soft key displays the soft key section of the HP enhanced keyboard on your screen. Click any of the keys on the screen to display the action assigned to an individual key or to change or assign an action to a key. Shortcut keys are provided specifically for user-defined actions.

Setting Hardware Passwords

You can set two passwords, the Hardware Administrator (or Supervisor) password and the Hardware User password, to provide two levels of protection for your PC Workstation. You set both passwords using the **Security** menu in the *Setup* program (refer to “The HP Summary Screen and Setup Program” on page 39).


Setting a Password

To set a Hardware Administrator or User password:

- 1 Start the *Setup* program (refer to “The HP Summary Screen and Setup Program” on page 39).
- 2 Select the **Security** menu.
- 3 Select the **Administrator** or **User** password submenu.
- 4 Choose the **Set Administrator** or **User password** setup item. You will be asked to enter your password twice.
- 5 To save your changes and exit the *Setup* program press **F3** or select **Exit Menu**, then **Exit Saving Changes**.

To remove the password, follow the same procedure as to set a password. You will be asked to enter the existing password first. Then, for the new password, leave the password field blank and press

 **Enter**.

To confirm your choice, press  **Enter** a second time.

Using Power Management

Power management enables you to reduce your PC Workstation's overall power consumption by slowing down the PC Workstation's activity when it is idle. To configure power management, refer to the Power menu in the *Setup* program (refer to "The HP Summary Screen and Setup Program" on page 39, for more information).

Refer to your operating system documentation for detailed information about the capability of your operating system to implement power management.

Additional Information and Help

Preloaded on Your PC Workstation's Hard Disk Drive

Additional information about your PC Workstation is preloaded on your PC Workstation's hard disk drive. This information includes:

- Finding information—where to find information about your PC Workstation, including links to useful HP Web sites.

You can access this information by pressing the “**i**” (HP Customer Information) key on your HP enhanced keyboard. Refer to “Using Your HP Enhanced Keyboard” on page 12.

- Working in comfort—guidance on ergonomic issues.

You can access this information by clicking the **Start** button and then **Programs ⇨ HP Info ⇨ Working in Comfort**.

- Using Sound—provides information about using your PC Workstation's audio features.

You can access this information by clicking the **Start** button and then **Programs ⇨ HP Info ⇨ Using Sound**.

On HP's Web Site

HP's web site contains a wide range of information, including downloadable documentation and service and support options.

Downloadable Documentation

HP's web site lets you download additional documentation for your PC Workstation. This documentation is provided in Adobe Acrobat (PDF) format.

The documentation for your PC Workstation is available free of charge on the HP Web site at:

<http://www.hp.com/go/kayaksupport>

This includes:

- *Upgrade and Configuration Guide* —describes in detail how to install accessories. It also has detailed troubleshooting information. This manual is described below.
- For XW Models —*HP VISUALIZE Fx6 Configuration and Troubleshooting Guide* —provides upgrade and troubleshooting information about your PC Workstation's graphics solution.
- *Using Sound* —provides information about using your PC Workstation's audio features (also preloaded on your PC Workstation's hard disk drive).
- *Network Administrator's Guide* —provides instructions on setting up your PC Workstation for a LAN connection (also preloaded on your PC Workstation's hard disk drive).
- *Service Handbook Chapters* —information on replacement parts, including HP part numbers.

The Upgrade and Configuration Guide

The Upgrade and Configuration Guide is a downloadable document in Acrobat (PDF) format. It contains detailed information about:

- ☐ Installing Accessories, including:
 - Installing Memory
 - Installing a Hard Disk Drive in an Internal Shelf
 - Installing a Hard Disk Drive in a Front Access Shelf
 - Installing a Drive in a Front Access Shelf
 - Installing Accessory Boards
 - Installing a Processor.
- ☐ Troubleshooting Your PC Workstation.
- ☐ Technical Information about your PC Workstation, including:
 - Technical specifications
 - System board switches
 - IRQs, DMAs, and I/O Addresses Used by Your PC Workstation
 - Configuring Your Network Connection
 - Configuring SCSI Accessories.

The installation and troubleshooting information in the *Upgrade and Configuration Guide* is more detailed than the information provided in this manual. HP recommends you download and print the *Upgrade and Configuration Guide* before installing any accessories.

NOTE

To view and print the *Upgrade and Configuration Guide* you will need to have Adobe's Acrobat Reader installed on your PC Workstation. The Acrobat Reader comes preloaded on all Windows NT systems. You can also download it free of charge from Adobe Systems Incorporated web site: **www.adobe.com**.

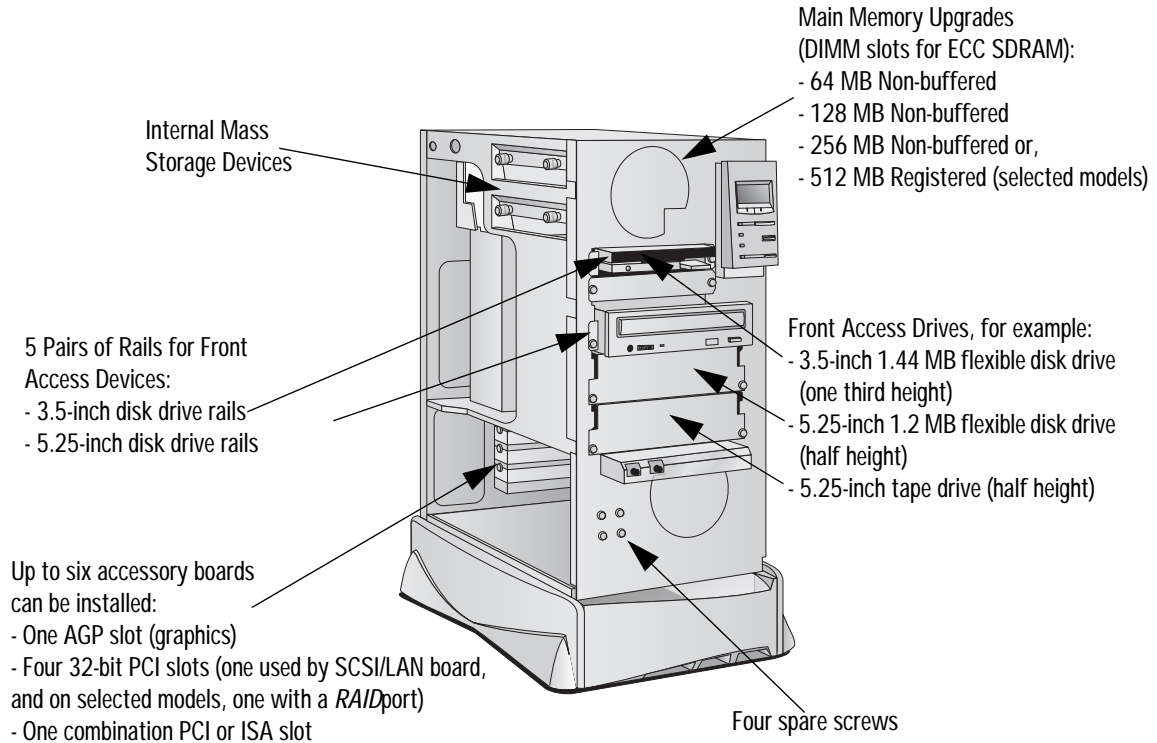
1 Setting Up and Using Your HP PC Workstation

Additional Information and Help

How to Install Accessories In Your HP PC Workstation

This chapter provides summary information about installing accessories in your PC Workstation. For more detailed information, refer to the *Upgrade and Configuration Guide*, available on HP's web site at <http://www.hp.com/go/kayaksupport>.

Supported HP Accessories



Contact your dealer for an up-to-date list of supported devices.

NOTE

512 MB registered ECC SDRAM DIMMS cannot be used with non-buffered 64 MB, 128 MB or 256 Non-buffered MB DIMMs.

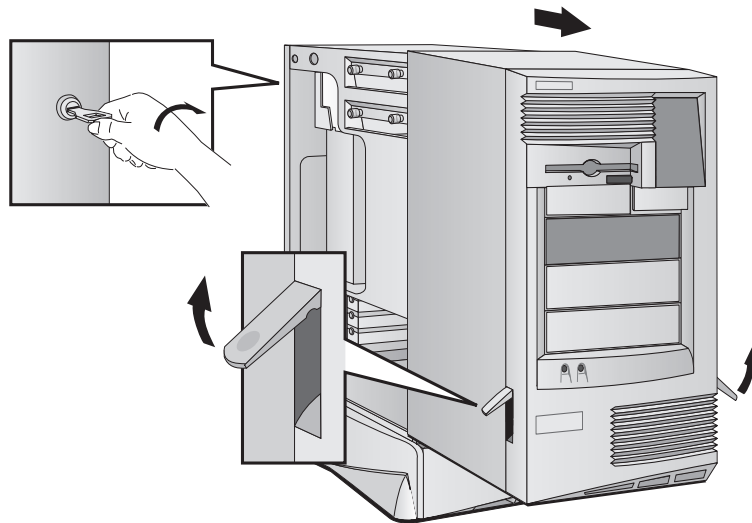
Removing and Replacing the Cover

WARNING

For your safety, never remove the PC Workstation's cover without first removing the power cord from the power outlet, and any connection to a telecommunications network. Always replace the cover on the PC Workstation before switching it on again.

Removing the Cover

- 1 Switch off the display and computer.
- 2 Disconnect all power cables and any LAN or telecommunications cables.
- 3 If necessary, unlock the cover using the key on the back panel.
- 4 Lift the two latches on the front sides of the computer upwards.
- 5 Grasp the cover on the sides at the back of the computer and slide it forwards and off the computer.

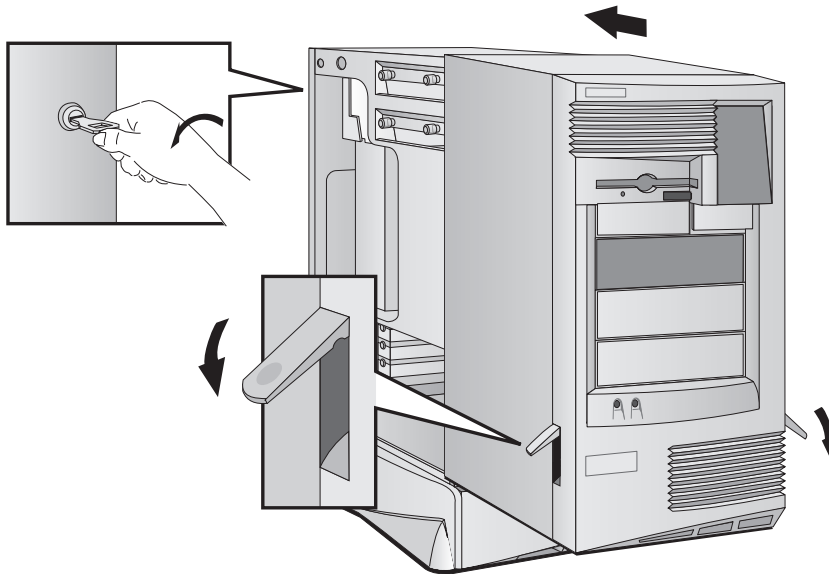


2 How to Install Accessories In Your HP PC Workstation

Removing and Replacing the Cover

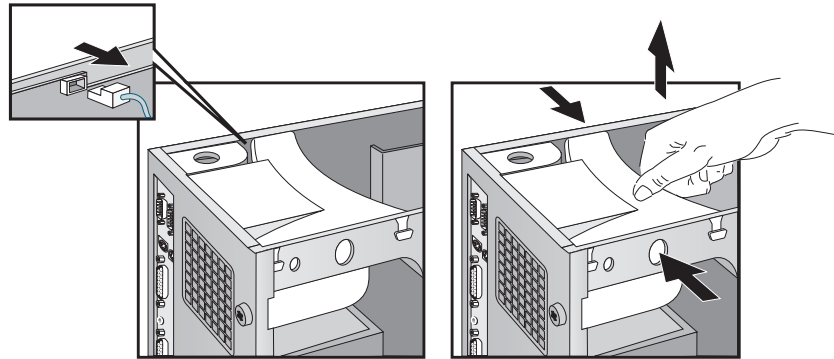
Replacing the Cover

- 1 Ensure that you have installed all your accessories and that all internal cables are properly connected and safely routed.
- 2 Ensure that the two latches on the front sides of the cover are lifted up, and that the lock is unlocked.
- 3 Slide the cover onto the computer, making sure that the two guides at the bottom of the case slide into the two rails on the base of the computer. Firmly slide the cover backwards into position.
- 4 Lower the latches on the front sides of the cover.
- 5 If required, lock the cover using the key provided.
- 6 Reconnect all the power and telecommunications cables.



Removing and Replacing the Airflow Guide

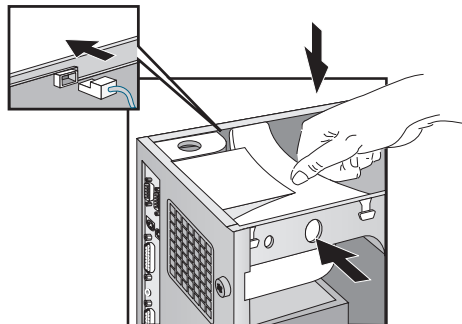
- 1 Press the retaining buttons on each side of the airflow guide and lift it partly out of the PC Workstation's case.
- 2 Remove the fan connection to the system board and lift the airflow guide completely out of the PC Workstation's case.



To improve access when installing accessories you may need to remove the airflow guide.

To Replace the HP UltraFlow Airflow Guide

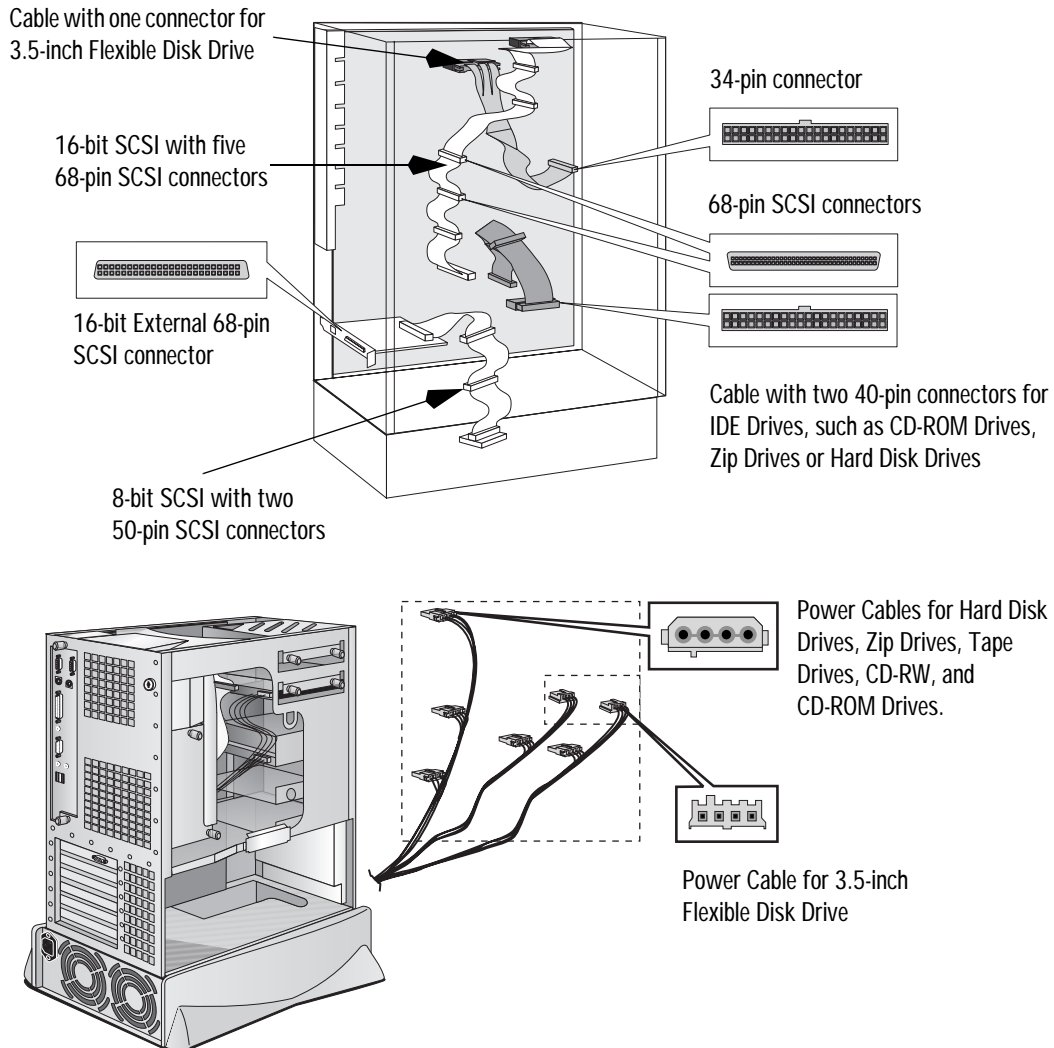
- 1 Hold the airflow guide partly inside the PC Workstation's case and reconnect the fan to the system board.
- 2 Align the airflow guide with the retaining slots on the PC Workstation's case and push firmly down into the case until it clicks into place.



Installing Mass Storage Devices

Connecting Devices

If you add an IDE Zip drive, hard disk drive, CD-ROM drive, CD-RW drive, or tape drive, you need to connect it to power and data cables. The data cables and power connectors provided are shown below:



Disk Striping (Selected Models Only)

To achieve top performance through disk striping, a RAIDport™ is provided on the system board aligned with PCI socket 3.

When the Adaptec® RAIDport adapter is installed in the PCI socket and RAIDport, the adapter sets up and accelerates disk striping on hard disks connected to the internal UltraWide 16-bit SCSI controller. The Adaptec® RAIDport adapter should be used with one or more striped hard disks.

For more information, refer to the *HP FastRAID Installation and Configuration Guide* that came with your PC Workstation.

Before Installing an IDE Hard Disk

Refer to the drive's installation guide to see if you must set jumpers or if there is a special installation procedure to follow.

Before Installing a SCSI Hard Disk

If you are installing an additional SCSI drive, you should assign an unused SCSI ID to this accessory. SCSI IDs range from 0 to 6 for Ultra narrow 8-bit SCSI and from 0 to 15 for Ultra wide 16-bit SCSI. SCSI ID 0 is used by the first SCSI hard disk drive and SCSI ID 7 is reserved for the integrated SCSI controller (the default for narrow and wide SCSI devices).

NOTE

You do not need to select a SCSI address for Plug and Play SCSI hard disks (SCSI hard disks that support the SCAM protocol). SCAM is disabled if the RAIDport adapter is installed.

You should assign an unused SCSI ID to the second SCSI hard disk drive (for example, SCSI ID 1).

The SCSI ID is usually configured with jumpers on the SCSI hard disk drive. Refer to the installation guide supplied with the drive for information on selecting a SCSI ID.

Some internal SCSI disk drives may have termination resistors that must be removed or disabled before installation in your computer. Refer to the drive's installation guide for more details and to see if there is a special installation procedure to follow.

2 How to Install Accessories In Your HP PC Workstation

Installing Mass Storage Devices

Troubleshooting Your HP PC Workstation

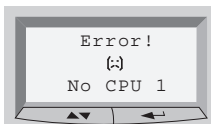
This chapter provides summary information that can help you solve problems you may have when using your PC Workstation. For more detailed information, refer to the *Upgrade and Configuration Guide*, available on HP's web site at <http://www.hp.com/go/kayaksupport>.

Using HP MaxiLife to Diagnose Problems

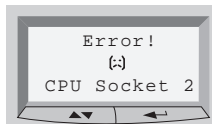
Your HP LCD can help you to diagnose problems with your PC Workstation, even when you are unable to get your system and monitor working properly.

Pre-Boot Checks

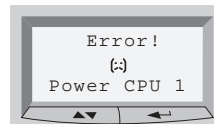
When you press your PC Workstation's on/off button, HP MaxiLife will check your system before it initiates the start-up sequence. You will see one of the following screens on the LCD as these checks progress:



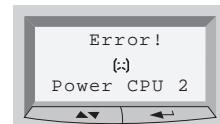
Check that processor is correctly installed in socket 1.



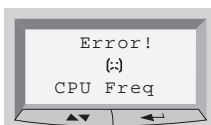
Check that a processor or terminator is correctly installed in socket 2.



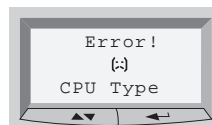
Check installation of VRM 1.



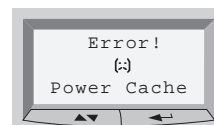
Check installation of VRM 3.



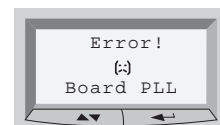
Ensure that the two processors installed are the same speed (frequency).



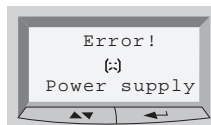
Ensure that the two processors installed have the same cache voltage.



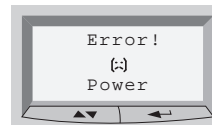
Ensure that VRM is correctly installed in VRM 2 socket.



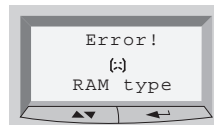
Check system board.



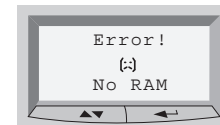
Check power supply and power cable connections.



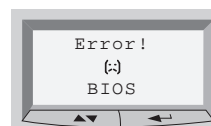
Check that configuration of VRMs and terminators is correct or that the power supply is properly connected.



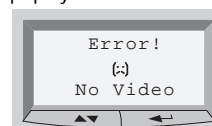
Check that RAM types installed are compatible.



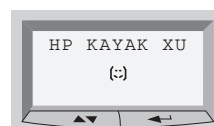
Check memory installation.



Flash new BIOS or start system using crisis switch (system board switch 10).



Check that graphics card is installed correctly.



No errors occurred during pre-boot. POST is initiated.

POST Phase

Following these checks, the POST (Power-On Self Test) sequence is initiated. One of the following screens will appear in this phase:



No errors occurred.



A POST error occurred. Refer to the *Upgrade and Configuration Guide* for more information.

Other Features

HP MaxiLife can also be configured to:

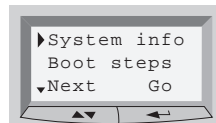
- Display the configuration details of your PC Workstation required to obtain support (*System info.*)
- Indicate POST (Power-On Self Test) steps during the power-on phase (*Boot steps*)
- Perform diagnostic tests on your PC Workstation's various hardware components and display the results (*Diags*).

To configure your HP LCD:

- 1 Ensure that your PC Workstation's power cord is connected to a grounded outlet.

In this state, your PC Workstation's hardware management chip is active, even if your system is not powered on.

- 2 Press one of the LCD control buttons. The following menu is displayed.



- 3 Use  to scroll down through the menu items and  to select the required menu item.

3 Troubleshooting Your HP PC Workstation

Using HP MaxLife to Diagnose Problems

System Info.

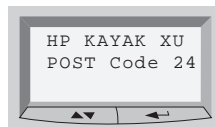
System information is displayed on the LCD one screen at a time and should detail the following:

- Bios version
- Number & speed of processors
- Number and capacity of memory modules installed
- Serial Number

To view these details, use the  button to scroll through the information screens.

Boot Steps

Where available, the *Boot steps* option will display all POST steps the next time your PC Workstation is powered on. For support purposes, POST steps are shown as POST codes and displayed on the LCD as follows:




Post steps will be displayed on the LCD the next time your PC Workstation is powered on.

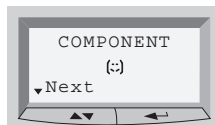
Diags

If your PC Workstation is powered off when *Diags* is selected, the LCD displays a second menu. To perform the diagnostics tests, select **Power on** from this menu to enable the hardware management chip to assess the status of your system's components.


If your PC Workstation is already powered on, the diagnostic tests will be performed as soon as you select *Diags* from the LCD's main menu.

To view the test results for each system component, press the  control button.

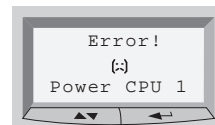
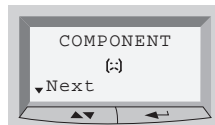
If no component errors are detected, the following screen will appear.



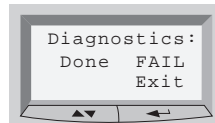
No errors were detected.

If an error is detected, an error screen appears indicating the problem. To continue viewing the test results of the other system components, press the  control button.

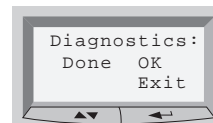
For example, if there is a problem with the boot processor the following error screen will appear. For more information, refer to “Check Internal Items” on page 34.




When the diagnostic tests are complete, one of the following screens is displayed.



System errors were detected.



No errors were detected.

You can exit the test session by pressing the  button.

HP DiagTools

DiagTools helps you to diagnose hardware-related problems on HP PCs and PC Workstations. It is designed to help you to:

- Check the configuration of your system and verify that it is functioning correctly.
- Diagnose hardware-related problems.
- Provide precise information to HP-dedicated Support Agents so that they can solve any problems quickly and effectively.

Installing this Utility

PC users must first install the latest version of this utility and then ensure it is ready for use.

For more information about how and where to install this utility, refer to the Vectra\Kayak Hardware Diagnostics *User's Guide*, available on the HP World Wide Web Site in PDF (Adobe Acrobat) format.

It is important that you use the latest version of this utility to diagnose hardware-related problems. If you do not, HP-dedicated Support Agents may request that you do so before offering support.

The latest version of this utility can be obtained from HP Electronic Information Services, available 24 hours per day, 7 days per week.

To access these services you should connect to the HP World Wide Web Site at **<http://www.hp.com/go/kayaksupport>**.

Starting This
Diagnostics Utility

To start the Hardware Diagnostics utility:

- 1 Quit all applications, shut down the operating system and restart your PC.
 - a If you are going to run this utility from a diskette, insert it into the floppy disk drive before you restart the PC. On restarting, this utility will run automatically, displaying the Welcome screen.
 - b If you are going to run this utility from your hard disk drive, the PC will restart with the option to choose between your usual operating system and this utility. Select the Vectra\Kayak Hardware Diagnostics option and it will start automatically, displaying the Welcome screen.
- 2 Press F2 to continue and follow the instructions on-screen to carry out the diagnostic tests.

This utility will automatically detect the complete hardware configuration of your system before any tests can be performed.

Basic System Tests

To verify the correct operation of your system's hardware, you will need to carry out the Basic System Tests.

Advanced System Tests

To perform more in-depth testing of your system's individual components, you will need to carry out the Advanced System Tests.

NOTE

The advanced test phase of this utility is suitable for intermediate and advanced users only.

Support Ticket

To produce a complete record of your system's configuration and test results, you will need to create a Support Ticket. This can then be sent, via email or fax, to your local or HP-dedicated Support Agent.

For more information on how to use this utility, refer to the Vectra\Kayak Hardware Diagnostics *User's Guide*, available on the HP World Wide Web Site, at <http://www.hp.com/go/kayaksupport>

If Your PC Workstation Does Not Start Properly

Display is Blank and There Are No Error Messages

If your display is blank and there are no error messages when you turn on your PC Workstation, follow this procedure:

- 1 Check the LCD screen (refer to “Using HP MaxiLife to Diagnose Problems” on page 28).
- 2 Check external items.
- 3 Check internal items.

Check External Items Be sure the following external items are functioning properly:

- Check that the computer and display are turned on. (The power light should be illuminated.)
- Check the display’s contrast and brightness settings.
- Make sure that all cables and power cords are firmly plugged in.
- Make sure the power outlet is working.

Check Internal Items If the PC Workstation still does not start properly, follow this procedure to check the internal items:

- 1 Turn off the display, the computer, and all external devices.
- 2 Unplug all power cords and cables, noting their positions. Disconnect the PC Workstation from any telecommunications network.
- 3 Remove the cover and check the following items:

LCD Error Messages	Action	Reference
-	Check all internal cables.	Ensure they are correctly attached and firmly in place.
Power CPU 1 Power CPU 2 Power Cache	Check that the processors and VRMs are correctly installed.	Refer to “Installing a Processor” in the <i>Upgrade and Configuration Guide</i> .
CPU error	Reset the PC Workstation or power-off the LAN.	Refer to “The MaxiLife Control Panel” on page 8.

3 Troubleshooting Your HP PC Workstation

If Your PC Workstation Does Not Start Properly

LCD Error Messages	Action	Reference
No RAM, RAM type	Check that the memory modules are correctly installed.	Refer to "Installing Memory" in the <i>Upgrade and Configuration Guide</i> .
-	Check that accessory boards are firmly seated in their slots.	Refer to "Installing Accessory Boards" in the <i>Upgrade and Configuration Guide</i> .
-	Verify that any switches and jumpers on the accessory boards are properly set.	Refer to the manuals that came with each board.
-	Check that the switches on the system board are properly set.	Refer to "System Board Switches in the <i>Upgrade and Configuration Guide</i> .
Temp disk, Temp CPU Temp IO slot	Check fans and that air flow guide is not blocked.	-
Fan CPU, Fan disk Fan IO slot	Check that fans are installed correctly.	-
Power supply	Check that power supply is properly connected.	-
Power	Check that power supply is properly connected, and that terminators and VRMs are properly installed.	Refer to "Installing a Processor" in the <i>Upgrade and Configuration Guide</i> .
No video	Check that the video card is properly installed.	Refer to the manual that came with the video card.
No CPU 1	Check that boot processor is correctly installed in socket 1.	Refer to "Installing a Processor" in the <i>Upgrade and Configuration Guide</i> .
CPU Socket 2	Check that the terminator is correctly installed in socket 2.	
CPU Freq.	Check that the processors installed are the same speed (frequency).	
CPU Type	Check that the processors installed have the same cache voltage.	

- 4 Replace the cover.
- 5 Reconnect all cables and power cords.
- 6 Turn on the display and computer.

If Your PC Workstation Has a Hardware Problem

This section describes what to do if you have problems with your display, keyboard, or mouse.

Display Does Not Work Properly

If Nothing Is Displayed On the Screen

If nothing is displayed on the screen, but the PC Workstation starts and the keyboard, disk drives, and other peripheral devices seem to operate properly:

- Check your PC Workstation's LCD screen to help you diagnose the problem.
- Make sure that the display is plugged in and switched ON.
- Check that the brightness and contrast controls are properly set.
- Ensure that the display video cable is correctly connected.
- Switch off the display, and unplug it from the power outlet.
- Disconnect the video cable and examine the video cable connector pins. If the pins are bent, carefully straighten them.
- Check that the video upgrade is properly installed if you have one.
- If the display works correctly during the Power-On-Self-Test (POST), but goes blank when Windows starts, check that you have enough memory for the video mode you have selected. Boot the operating system in VGA mode (available with some systems).
- If your screen's refresh rate is set too high, the screen might be blank. Check the refresh settings to ensure they are not too high.

Other Display Problems

If the display image is not aligned with the screen, use the display's controls to center the image (refer to the display manual for instructions). If the screens generated by the applications do not appear to be correct, check the application's manual to find out which video standard is required. Also check your display manual to find out which refresh rate is required. Use your operating system's procedures, to select the correct refresh rate.

Troubleshooting Graphics on the Kayak XW PC Workstation

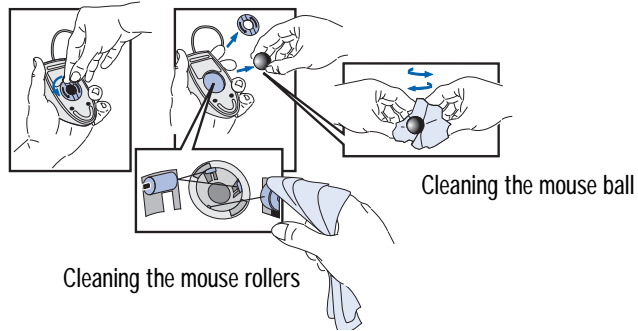
For PC Workstations equipped with a HP VISUALIZE Fx6 graphics accelerator, refer to the *HP VISUALIZE Fx6 Configuration and Troubleshooting Guide*, available in Acrobat (PDF) format on HP's web site (<http://www.hp.com/go/kayaksupport>).

If Your Keyboard Does Not Work

- Ensure that the keyboard is correctly connected (a keyboard icon will be displayed on your screen if the keyboard is not connected).
- If you turn on your PC Workstation, the operating system boots, and the keyboard is correctly connected but still not available, the power-on password may be set to “keyboard locked”. You will need to enter a password to unlock the keyboard and mouse. You can change this setting in the *Setup* program. Refer to the Power Menu in the HP *Setup* program.
- If you have difficulties using the keyboard's soft keys, you will need to install the keyboard driver provided on the HP CD-ROM (in the **keyboard** directory) supplied with your PC Workstation.
- If you have difficulties using the **Mute** and **Volume** keys, you may need to install the sound driver provided on the HP CD-ROM (in the **audio** directory) supplied with your PC Workstation.
- If you have difficulties using the Lock key, you should check the installation and configuration of the HP Lock utility.
- If you have difficulties using the TopTools keys, you should check the installation of HP TopTools.

If Your Mouse Does Not Work

- Ensure that the mouse is correctly connected.
- Ensure that the mouse driver supplied with the preloaded software is installed correctly.
- Clean the mouse ball and rollers as shown in the figure below (use a non-residual contact cleaner).



The HP Summary Screen and *Setup* Program

You can use the Summary Screen and the *Setup* program to configure your PC Workstation and solve configuration problems with your PC Workstation.

Starting the HP *Setup* Program

- 1 Turn on the display and then the PC Workstation. If the PC Workstation is already turned on, save your data and exit all programs, then restart the PC Workstation. Consult your operating system documentation for any special instructions concerning turning off and then restarting your PC Workstation.
- 2 Press **F2** while **F2 Setup** is displayed at the bottom of the screen. If you fail to press **F2** in time and the start-up process continues, you will need to restart your PC Workstation to go through the POST again so you can press **F2**.

The opening screen of the PC Workstation's *Setup* program is displayed.

Viewing the HP Summary Screen

Check your PC Workstation's configuration each time after you install, remove, or upgrade accessories. To check the configuration:

- 1 Turn on the display and then the PC Workstation. If the PC Workstation is already turned on, save your data and exit all programs, then restart the PC Workstation. Consult your operating system documentation for any special instructions concerning turning off and then restarting your PC Workstation.
- 2 While the start-up logo appears on your display, press **Esc**. This takes you to the HP Summary Screen. (To go immediately into the *Setup* program, and bypass the Summary Screen, press **F2** instead of **Esc**). The Summary Screen is displayed for only a short time. To retain the screen (until you decide to leave it), press **F5**.

3 Troubleshooting Your HP PC Workstation

The HP Summary Screen and Setup Program

Hewlett Packard Support and
Information Services

Introduction

Hewlett Packard computers are engineered for quality and reliability to give you many years of trouble-free service. To ensure that your desktop system maintains its reliability and to keep you up-to-date with the latest developments, HP and a worldwide network of trained and authorized resellers provide a comprehensive range of service and support options which are listed below:

- HP Information Services

Service	Means of Access
HP World Wide Web Site	www.hp.com/go/kayak

- HP Support Services

Technical phone support
Lifeline phone support
Network phone-in support.

NOTE

When calling any of the international telephone numbers listed in this chapter, replace the '+' with your international telephone access code.

Hewlett-Packard Information Services

Hewlett-Packard Electronic Information Services are available 24 hours a day, 7 days a week, ensuring that the most up-to-date information is always available.

HP World Wide Web Site

The HP World Wide Web site gives you access to information about HP, its products, including product data sheets, service and support information, electronic newsletters and technical tips. You can also download the latest versions of drivers, BIOS and software utilities.

The Access Guide Directory guides you through the information and services available.

World-Wide Web URL

For product information: <http://www.hp.com/go/kayak>

For service and support information: <http://www.hp.com/go/kayaksupport>

Hewlett-Packard Telephone Support

- HP North American Customer Support Center

Assistance from the HP North American Customer Support Center is available Monday to Friday, 7:00 am to 6:00 pm Mountain time.
The number is: +1 (970) 635-1000
- HP European Customer Support Center

Assistance from the HP European Customer Support Center is available Monday to Friday, 8:30 am to 6:00 pm Central European time.¹

Country	Language	Local Number
United Kingdom	English	0171 512 5202
Ireland	English	01 662 5525
Netherlands	Dutch	020 606 8751
Belgium	Dutch	02 626 8806
	French	02 626 8807
Switzerland	French	084 880 1111
	German	084 880 1111
Germany	German	0180 525 8143
France	French	01 43 62 34 34
Austria	German	0660 6386
Norway	Norwegian	22 11 6299
Denmark	Danish	3929 4099
Sweden	Swedish	08 619 2170
Italy	Italian	02 26410350
Spain	Spanish	902 321 123
Portugal	Portuguese	01 441 7199

1. For non-listed European countries, support is available in English by calling +44 171 512 5202.

Please have the following information ready when you call so that your enquiry can be dealt with quickly:

- Your HP PC Workstation model number and serial number.
- The operating system version and the configuration.
- A description of the software installed and the accessories used.

Lifeline Telephone Support

Lifeline is a fee-based telephone support program for PC Workstations available after the one-year telephone support provided as part of the hardware warranty has expired.

Your call can either be charged to your phone bill at a per-minute rate or to your credit card (Visa, Mastercard or American Express) at a flat fee.

The charge begins AFTER you have been put in contact with a support technician. If your problem is found to be covered by the HP Hardware Warranty, no charge will be applied.

In the US please call the appropriate number listed below.

Number	Method of Payment	Charge Type
1 (900) 555-1500	Charged to phone bill	per-minute rate
1 (800) 999-1148	Charged to credit card	Flat fee

In Europe, please call the telephone support center (+44 171 512 5202).

Free access to HP information services is not affected by this service. You are encouraged to access HP Information Services throughout the life of your PC Workstation, whether in or out of warranty.

Summary

The table below summarizes the services and support available from HP or authorized resellers.

Service	Covers	Period covered	Response time	Fee	When available	Purchase from
Basic Warranty	Parts and labor for HP products: first year on-site parts & labor; second and third year parts only.	Three years from date of purchase.	Next working day for on-site.	No charge.	At time of purchase.	HP.
HP SupportPack on-site service	Parts and labor for HP products.	First three years.	Next working day.	One fee which covers the three years.	Within 30 days of purchase.	HP Authorized reseller.
HP Support Assistant	CD-ROM containing: Product Manuals, Technical Information and Product features.	Released quarterly.	N/A	Annual subscription.	Anytime.	HP.
Electronic services	Technical information, drivers, utilities, tools and diagnostics.	Anytime.	24-hour access.	No charge.	Anytime.	HP BBS, WWW, CompuServe, America Online.
Technical Phone support	Basic assistance for PC Workstation setup, configuration, start-up and hardware diagnosis.	First year.	Business hours.	No charge.	At time of purchase.	HP.
Lifeline phone support	Basic assistance for PC Workstation setup, configuration, start-up and hardware diagnosis.	After first year.	Business hours.	Per-call fee, no time limit.	Anytime after first year.	HP.
HP Network Phone-in support	Advanced remote technical support for multivendor networked environments.	Annual contract.	Business hours: 24-hour/ 7-day service also available.	Annual fee, or minimum fee per incident.	Anytime.	HP Authorized reseller.
Service Contracts	Technical Support.	Customer defined.	As required.	Annual fee, or fee per incident.	Anytime.	Reseller.

Index

Numerics

10/100BT LAN interface, 4

A

accessories

- installing, 19
- supported, 20

activity light

- hard disk, 8
- network, 8

Addition Information, 15

audio

- connector, 5
- LINE IN, 5
- LINE OUT, 5

B

BIOS

- obtaining via World Wide Web, 43

C

cables

- keyboard, 3

connecting

- display, 3
- keyboard, 3
- to network, 4

connector

- audio, 5
- external SCSI, 6
- headphones, 5
- microphone, 5
- MIDI, 5
- parallel port, 3
- power, 7
- printer, 3
- RJ-45, 4
- serial port, 3
- control panel, 8
- cover
 - removing, 21
 - replacing, 22

D

disk drives

- installing, 24
- disk striping, 25
- display

- connecting, 3

drivers

- obtaining via World Wide Web, 43

E

enhanced keyboard, 12

- purpose, 12

H

hard disk

- activity light, 8

headphones

- connector, 5

Hewlett-Packard

- information services, 43
- support and information services, 41
- World Wide Web access, 43

HP DiagTools, 32

HP Lock, 8

HP MaxiLife, 8

HP Setup program, 39

HP Summary screen, 39

HP TopTools, 37

I

information services, 43

initializing

- software, 10

installing

- accessories, 19
- disk drives, 24
- printer, 3

K

keyboard, 12

- connecting, 3
- troubleshooting, 37

L

LINE IN jack, 5

LINE OUT, 5

lock button, 8

M

Mass Storage Devices, 20

microphone

- connector, 5

MIDI

- connector, 5

mouse

- troubleshooting, 38

N

network

- activity light, 8
- connecting to, 4
- RJ-45 connector, 4
- NT Lock, 8

P

parallel port

- connector, 3

password

- setting, 13

PC lock button, 8

PC Workstation

- starting, 9
- starting and stopping, 9
- starting first time, 9
- stopping, 11
- troubleshooting, 27
- unpacking, 2

Plug and Play

- SCSI, 25

power

- connector, 7
- management, 14

Power-On Self-Test (POST)

- screen, 10

printer

- connector, 3
- installing, 3

R

RAIDport, 20

RJ-45

- connector, 4

RJ-45 connector, 4

S

safety information, iv

SCSI, 6

- external connector, 6

- Plug and Play, 25

- Wide 16-bit, 6

serial port

Index

- connector, 3
- setting
 - password, 13
- setup program, 39
- software
 - initializing, 10
 - license agreement, 10
- starting
 - and stopping PC Workstation, 9
 - PC Workstation, 9
 - PC Workstation first time, 9
- stopping
 - PC Workstation, 11
- summary screen, 39
- support
 - by telephone, 44, 45
 - information services, 41
 - summary of services, 46
- supported HP accessories, 20

T

- telephone support
 - out of warranty, 45
 - under warranty, 44
- tools
 - required for installation, 2
- troubleshooting, 27
 - keyboard, 37
 - mouse, 38
 - PC Workstation, 27

U

- unpacking the PC Workstation, 2
- Upgrade and Configuration Guide, 16
- URL
 - for HP World Wide Web site, 43

W

- World Wide Web
 - access to HP, 43

Regulatory Information and Warranty

Regulatory Information

DECLARATION OF CONFORMITY according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: HEWLETPACKARD
Manufacturer's Address: 5 Avenue Raymond Chanas
38053 Grenoble Cedex 09
FRANCE

Declares that the product:

Product Name: HP Kayak XU & XW PC Workstation
Model Number: MT Model

Conforms to the following Product Specifications:

SAFETY

International: IEC 950: 1991 + A1 + A2 + A3 + A4
Europe: EN 60950: 1992 + A1 + A2 + A3 + A4

EMC

CISPR 22: 1993 / EN 55022: 1994 Class B¹
EN 50082-1: 1992
IEC 801-2: 1992 / prEN 55024-2: 1992 - 4 kV CD, 8 kV AD
IEC 801-3: 1984 / prEN 55024-3: 1991 - 3 V/m
IEC 801-4: 1988 / prEN 55024-4: 1992 - 0.5 kV Signal Lines,
1 kV Power Lines
IEC 555-2: 1982 + A1: 1985 / EN 60555-2: 1987
IEC 1000-3-3: 1994 / EN 61000-3-3: 1995
FCC Title 47 CFR, Part 15 Class B² / ICES-003, Issue 2 / VCCI-2¹
AS / NZ 3548: 1992

Supplementary information: The product herewith complies with the requirements of the following Directives and carries the CE marking accordingly:

the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC both amended by the Directive 93/68/EEC.

¹ The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.

² This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



Grenoble, June 1998

Jean-Marc JULIA, Product Quality Manager

For compliance information ONLY, contact:

USA Contact: Hewlett-Packard Company, Corporate Product Regulations Manager, 3000 Hanover Street, Palo Alto, CA 94304. (Tel. (415) 857-1501)

FCC (for USA only)**Federal Communications Commission Radio Frequency Interference Statement****Warning:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help.

Hewlett-Packard's FCC Compliance Tests were conducted with HP-supported peripheral devices and HP shielded cables, such as those you receive with your system. Changes or modifications not expressly approved by Hewlett-Packard could void the user's authority to operate the equipment.

Notice for Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Safety Warning for the USA and Canada

If the power cord is not supplied with the computer, select the proper power cord according to your local national electric code.

USA: use a UL listed type SVT detachable power cord.

Canada: use a CSA certified detachable power cord.

For your safety, never remove the PC's cover without first removing the power cord and any connection to a telecommunication network. Always replace the cover before switching on again.

Si le cordon secteur n'est pas livré avec votre ordinateur, utiliser un cordon secteur en accord avec votre code électrique national.

USA: utiliser un cordon secteur "UL listed", de type SVT.

Canada: utiliser un cordon secteur certifié CSA.

Pour votre sécurité, ne jamais retirer le capot de l'ordinateur sans avoir préalablement débranché le cordon secteur et toute connection à un réseau de télécommunication. N'oubliez pas de replacer le capot avant de rebrancher le cordon secteur.

Notice for the United Kingdom

The HP Kayak XU and XW PC Workstations are approved under approval number NS/G/1234/J/100003 for indirect connection to Public Telecommunication Systems within the United Kingdom.

**Notice for the Netherlands**

Bij dit apparaat zijn batterijen geleverd. Wanneer deze leeg zijn, moet U ze niet weggooien maar inleveren als KCA.

Notice for Germany

Wenn die Batterie nicht korrekt eingebaut wird, besteht Explosionsgefahr. Zu ihrer eigenen Sicherheit sollten Sie nicht versuchen, die Batterie wiederaufzuladen, zu zerlegen oder die alte Batterie zu verbrennen. Tauschen Sie die Batterie nur gegen den gleichen oder ähnlichen Typ aus, der vom Hersteller empfohlen wird. Bei der in diesem PC integrierten Batterie handelt es sich um eine Lithium-Batterie, die keine Schwermetalle enthält. Batterien und Akkumulatoren gehören nicht in den Hausmüll. Sie werden vom Hersteller, Händler oder deren Beauftragten kostenlos zurückgenommen, um sie einer Verwertung bzw. Entsorgung zuzuführen.

Noise Declaration for Germany

Lärmangabe nach Maschinenlärmverordnung - 3 GSGV (Deutschland)

LpA < 70 db am Arbeitsplatz normaler Betrieb nach EN27779: 11.92.

Notice for Japan

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取り扱い説明書に従って正しい取り扱いをして下さい。

This equipment is in the Class B category information technology equipment based on the rules of the Voluntary Control Council For Interference by Information Technology Equipment (VCCI). Although aimed for residential area operation, radio interference may be caused when used near a radio or TV receiver. Read the instructions for correct operation.

Notice for Korea

사용자 안내문 (B급 기기)

이 기기는 비업무용으로 전자파장애검정을 받은 기기로서, 주거지역에서는 물론 모든 지역에서 사용될 수 있습니다.

Recycling Your PC

HP has a strong commitment toward the environment. Your HP Personal Computer has been designed to respect the environment as much as possible.

HP can also take your old PC back for recycling when it reaches the end of its useful life.

HP has a product take-back program in several countries. The collected equipment is sent to one of HP's recycling facilities in Europe or the USA. As many parts as possible are reused. The remainder is recycled. Special care is taken for batteries and other potentially toxic substances, which are reduced into non-harmful components through a special chemical process.

If you require more details about HP's product take-back program, contact your dealer or your nearest HP Sales Office.

HP Hardware Warranty

Important: This is your hardware product warranty statement. Please, read it carefully.

Warranty terms may be different in your country. If so, your Authorized HP Dealer or Hewlett-Packard Sales and Service Office can give you details.

HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

HP products external to the system processor unit —such as external storage subsystems, displays, printers, and other peripherals— are covered by the applicable warranties for those products; HP software is covered by the HP Software Product Limited Warranty

FOR CONSUMER TRANSACTIONS IN AUSTRALIA AND NEW ZEALAND: THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Three Year Limited Hardware Warranty

Hewlett-Packard (HP) warrants this hardware product against defects in materials and workmanship for a period of three years from receipt by the original end-user purchaser.

The three year warranty includes on-site service during the first year of use (free parts and labor), and parts service provided by an HP Service Center or a participating Authorized HP Personal Computer Dealer Repair Center, during the second and third years of use.

If HP receives notice of above defined defects during the warranty period, HP will either, at its option, repair or replace products, which prove to be defective.

Should HP be unable to repair or replace the product within a reasonable amount of time, the customer's alternate exclusive remedy shall be a refund of the purchase price upon return of the product.

The system processor unit, keyboard, mouse, and Hewlett-Packard accessories inside the system processor unit —such as video adapters, mass storage devices, and interface controllers— are covered by this warranty.

This warranty is extended worldwide under certain conditions (please check with your local HP office) to products purchased from HP or an Authorized HP Personal Computer Dealer which are reshipped by the original purchaser either for use by the original purchaser or provided as an incidental part of systems integrated by the original purchaser. When available in the country of use, service is provided in the same manner as if the product was purchased in that country and can only be provided in countries where the product is designed to operate. If the product is not normally sold by HP in the country of use, it must be returned to the country of purchase for service. Response time for on-site service, and parts delivery turn-around time for parts service, are subject to changes from standard conditions based upon non-local parts availability.

Limitation of Warranty

The above warranty shall not apply to defects resulting from: misuse; unauthorized modification; operation or storage outside the environmental specifications for the product; in-transit damage; improper maintenance; or defects resulting from use of non-HP software, accessories, media, supplies, consumables, or such items not designed for use with the product.

Reloading the bundled or pre-loaded software on your PC Workstation is not covered by the HP warranty.

HP MAKES NO OTHER EXPRESS WARRANTY, WHETHER WRITTEN OR ORAL, WITH RESPECT TO THIS PRODUCT. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS IS LIMITED TO THE THREE-YEAR DURATION OF THIS WRITTEN WARRANTY. SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state, or province to province.

Regulatory Information and Warranty

Limitation of Liability and Remedies

THE REMEDIES PROVIDED ABOVE ARE THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL HP BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON WARRANTY, CONTRACT, TORT, OR ANY OTHER LEGAL THEORY.

The foregoing limitation of liability shall not apply in the event that any HP product sold hereunder is determined by a court of competent jurisdiction to be defective and to have directly caused bodily injury, death, or property damage; provided, that in no event shall HP's liability for property damage exceed the greater of \$50,000 or the purchase price of the specific product that caused such damage.

Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages — including lost profit — so the above limitation or exclusion may not apply to you.

Obtaining On-Site Warranty Service

To obtain on-site warranty service, the customer must contact an HP Sales and Service Office (in the US, call the HP Customer Support Center at (303) 635-1000) or a participating Authorized HP Personal Computer Dealer Repair Center. The customer must be prepared to supply proof of the purchase date.

The system processor unit, keyboard, mouse, and Hewlett-Packard accessories inside the system processor unit — such as video adapters, mass storage devices, and interface controllers — are covered by this warranty.

During the on-site warranty period, customer-replaceable components may be serviced through expedited part shipment. In this event, HP will prepay shipping charges, duty, and taxes; provide telephone assistance on replacement of the component when necessary; and pay shipping charges, duty, and taxes for any part that HP asks to be returned.

On-site visits caused by non-Hewlett-Packard products — whether internal or external to the system processor unit — are subject to standard per-incident travel and labor charges.

On-site service for this product is restricted or unavailable in certain locations. In HP Excluded Travel Areas — areas where geographical obstacles, undeveloped roads, or unsuitable public transportation prohibit routine travel — service is provided on a negotiated basis at extra charge.

Response time for HP on-site service in an HP Service Travel Area is normally next business day (excluding HP holidays) for HP Travel Zones 1-3 (generally 100 miles or 160 Km from the HP office). Response time is second business day for Zones 4 and 5 (200 miles, 320 Km); third business day for Zone 6 (300 miles, 480 Km); and negotiated beyond Zone 6. Worldwide Customer Support Travel information is available from any HP Sales and Service Office.

Travel restrictions and response time for dealer or distributor service are defined by the participating dealer or distributor.

Service contracts which provide after-hour or weekend coverage, faster response time, or service in an Excluded Travel Area are often available from HP, an authorized dealer, or authorized distributor at additional charge.

Customer Responsibilities

The customer may be required to run HP-supplied diagnostic programs before an on-site visit or replacement part will be dispatched.

The customer is responsible for the security of its proprietary and confidential information and for maintaining a procedure external to the products for reconstruction of lost or altered files, data, or programs.

The customer must provide: access to the product; adequate working space and facilities within a reasonable distance of the product; access to and use of all information and facilities determined necessary by HP to service the product; and operating supplies and consumables such as the customer would use during normal operation.

A representative of the customer must be present at all times. The customer must state if the product is being used in an environment which poses a potential health hazard to repair personnel; HP or the servicing dealer may require that the product be maintained by customer personnel under direct HP or dealer supervision.

Obtaining Parts Warranty Service

When parts warranty service applies, the customer may be required to run HP-supplied diagnostic programs before a replacement part will be dispatched. The customer must be prepared to supply proof of purchase.

The customer shall return some defective parts upon HP demand. In that case, HP will prepay shipping charges for parts returned to the HP parts service center.

HP Telephone Support Services

HP Free telephone support for your PC Workstation is available during the first year from date of purchase. This service will also provide technical assistance with the basic configuration and setup of your Kayak PC Workstation and for the bundled or pre-loaded operating system.

Telephone support is available at the end of the first year from date of purchase, via the Lifeline program, which is a fee-based service (North America and Europe only).

HP does NOT provide telephone support for PC Workstations configured as network servers. We recommend HP NetServers for your network server requirements.

(Rev. 17/03/98)

HP Software Product License Agreement and Software Product Limited Warranty

Your HP Kayak PC Workstation contains preinstalled software programs. Please read the Software License Agreement before proceeding.

CAREFULLY READ THIS LICENSE AGREEMENT AND LIMITED WARRANTY STATEMENT BEFORE PROCEEDING TO OPERATE THIS EQUIPMENT. RIGHTS IN THE SOFTWARE ARE OFFERED ONLY ON THE CONDITION THAT THE CUSTOMER AGREES TO ALL TERMS AND CONDITIONS OF THE LICENSE AGREEMENT. PROCEEDING TO OPERATE THE EQUIPMENT INDICATES YOUR ACCEPTANCE OF THESE TERMS AND CONDITIONS. IF YOU DO NOT AGREE WITH THE TERMS OF THE LICENSE AGREEMENT, YOU MUST NOW EITHER REMOVE THE SOFTWARE FROM YOUR HARD DISK DRIVE AND DESTROY THE MASTER DISKETTES, OR RETURN THE COMPLETE COMPUTER AND SOFTWARE FOR A FULL REFUND. PROCEEDING WITH CONFIGURATION SIGNIFIES YOUR ACCEPTANCE OF THE LICENSE TERMS.

HP Software Product License Agreement

UNLESS OTHERWISE STATED BELOW, THIS HP SOFTWARE PRODUCT LICENSE AGREEMENT SHALL GOVERN THE USE OF ALL SOFTWARE THAT IS PROVIDED TO YOU, THE CUSTOMER, AS PART OF THE HP COMPUTER PRODUCT. IT SHALL SUPERSEDE ANY NON-HP SOFTWARE LICENSE TERMS THAT MAY BE FOUND ON-LINE, OR IN ANY DOCUMENTATION OR OTHER MATERIALS CONTAINED IN THE COMPUTER PRODUCT PACKAGING.

Note: Operating System Software by Microsoft is licensed to you under the Microsoft End User License Agreement (EULA) contained in the Microsoft documentation.

The following License Terms govern the use of the software:

USE. Customer may use the software on any one computer. Customer may not network the software or otherwise use it on more than one computer. Customer may not reverse assemble or decompile the software unless authorized by law.

COPIES AND ADAPTATIONS. Customer may make copies or adaptations of the software (a) for archival purposes or (b) when copying or adaptation is an essential step in the use of the software with a computer so long as the copies and adaptations are used in no other manner.

OWNERSHIP. Customer agrees that he/she does not have any title or ownership of the software, other than ownership of the physical media. Customer acknowledges and agrees that the software is copyrighted and protected under the copyright laws. Customer acknowledges and agrees that the software may have been developed by a third party software supplier named in the copyright notices included with the software, who shall be authorized to hold the Customer responsible for any copyright infringement or violation of this Agreement.

PRODUCT RECOVERY CD-ROM. If your computer was shipped with a product recovery CD-ROM: (i) The product recovery CD-ROM and/or support utility software may only be used for restoring the hard disk of the HP computer with which the product recovery CD-ROM was originally provided. (ii) The use of any operating system software by Microsoft contained in any such product recovery CD-ROM shall be governed by the Microsoft End User License Agreement (EULA).

Regulatory Information and Warranty

TRANSFER OF RIGHTS IN SOFTWARE. Customer may transfer rights in the software to a third party only as part of the transfer of all rights and only if Customer obtains the prior agreement of the third party to be bound by the terms of this License Agreement. Upon such a transfer, Customer agrees that his/her rights in the software are terminated and that he/she will either destroy his/her copies and adaptations or deliver them to the third party.

SUBLICENSING AND DISTRIBUTION. Customer may not lease, sublicense the software or distribute copies or adaptations of the software to the public in physical media or by telecommunication without the prior written consent of Hewlett-Packard.

TERMINATION. Hewlett-Packard may terminate this software license for failure to comply with any of these terms provided Hewlett-Packard has requested Customer to cure the failure and Customer has failed to do so within thirty (30) days of such notice.

UPDATES AND UPGRADES. Customer agrees that the software does not include updates and upgrades which may be available from Hewlett-Packard under a separate support agreement.

EXPORT CLAUSE. Customer agrees not to export or re-export the software or any copy or adaptation in violation of the U.S. Export Administration regulations or other applicable regulation.

U.S. GOVERNMENT RESTRICTED RIGHTS. Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013. Hewlett-Packard Company, 3000 Hanover Street, Palo Alto, CA94304 U.S.A. Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c) (1,2).

HP Software Product Limited Warranty

THIS HP SOFTWARE PRODUCT LIMITED WARRANTY SHALL COVER ALL SOFTWARE THAT IS PROVIDED TO YOU, THE CUSTOMER, AS PART OF THE HP COMPUTER PRODUCT, INCLUDING ANY OPERATING SYSTEM SOFTWARE. IT SHALL SUPERSEDE ANY NON-HP WARRANTY TERMS THAT MAY BE FOUND ON-LINE, OR IN ANY DOCUMENTATION OR OTHER MATERIALS CONTAINED IN THE COMPUTER PRODUCT PACKAGING.

Ninety-Day Limited Software Warranty. HP warrants for a period of NINETY (90) DAYS from the date of the purchase that the software product will execute its programming instructions when all files are properly installed. HP does not warrant that the software will be uninterrupted or error free. In the event that this software product fails to execute its programming instructions during the warranty period, Customer's remedy shall be a refund or repair. Should HP be unable to replace the media within a reasonable amount of time, Customer's alternate remedy shall be a refund of the purchase price upon return of the product and all copies.

Removable Media (If supplied). HP warrants the removable media, if supplied, upon which this product is recorded to be free from defects in materials and workmanship under normal use for a period of NINETY (90) DAYS from the date of purchase. In the event the media proves to be defective during the warranty period, Customer's remedy shall be to return the media to HP for replacement. Should HP be unable to replace the media within a reasonable amount of time, Customer's alternate remedy shall be a refund of the purchase price upon return of the product and destruction of all other non removable media copies of the software product.

Notice of Warranty Claims. Customer must notify HP in writing of any warranty claim not later than thirty (30) days after the expiration of the warranty period.

Limitation of Warranty. HP makes no other express warranty, whether written or oral with respect to this product. Any implied warranty of merchantability or fitness for a particular purpose is limited to the 90-day duration of this written warranty. Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives specific legal rights, and you may also have other rights which vary from state to state, or province to province.

Limitation of Liability and Remedies. THE REMEDIES PROVIDED ABOVE ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL HP BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFIT) WHETHER BASED ON WARRANTY, CONTRACT, TORT OR ANY OTHER LEGAL THEORY. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Obtaining Warranty Service. Warranty service may be obtained from the nearest HP sales office or other location indicated in the owner's manual or service booklet.

Consumer transactions in Australia and the United Kingdom: The disclaimers and limitations above shall not apply and shall not affect the statutory rights of a Consumer.

(Rev. 19/11/96)

Physical Characteristics

Characteristics:	Description:
Weight (excl. keyboard and display)	22 kilograms (48.4 pounds).
Dimensions	41.6 cm (max.) (D) by 27 cm (W) by 51 cm (H) (16.38 inches (max) by 10.63 inches by 20.08 inches).
Footprint	0.09 m ² (0.95 sq ft).
Storage temperature	-40 °C to 70°C (-40 °F to 158 °F).
Storage humidity	8% to 80% (relative).
Operating temperature	5 °C to 40 °C (40 °F to 104 °F).
Operating humidity	15% to 80% (relative).
Acoustic noise emission: Sound Power — with 10 krpm SCSI hard disk drive	(as defined ISO 7779) LwA < 50 dB
Power supply	<ul style="list-style-type: none">• Input voltage: 100 - 127\200 - 240 Vac (selected automatically)• Input frequency: 50/60Hz• Maximum power: 350 W continuous

Power Consumption

	XU Models	XW Models
Operating	85 W (average)	140 W (average)
Idle	75 W (average)	124 W (average)
Off	6.5 W ¹ (average)	6.1 W (average)

1. The power supply in your PC Workstation continues to supply power to the CMOS memory, even when switched off.

Maximum Loads Available for Accessory Slots

The load limits for the ISA and PCI accessory slots are compliant with ISA and PCI specifications. More details of permitted loads are provided on the World Wide Web (refer to "HP World Wide Web Site", on page 43 for access details) in the support documentation section for your PC Workstation.

PC Workstation Documentation Roadmap

If you want to ...

